Title (en)
NOISE-ROBUST OBJECT LOCATION WITH ULTRASOUND

Title (de)
RAUSCHROBUSTE OBJEKTORTUNG MIT ULTRASCHALL

Title (fr)
LOCALISATION D'OBJET, ROBUSTE AU BRUIT, AVEC DES ULTRASONS

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EP 15738100 A 20150716

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Abstract (en)
[origin: WO2016008972A1] The invention relates to a method for operating an ultrasonic measurement device (12), wherein a transmission signal (U) is generated from a digital transmission sequence (34) by a transmit branch (24) and an ultrasound signal (S) is generated from the transmission signal (U) by a transmission unit (26), a receive signal (Rb, Rb') is generated by a receive unit (26) as a function of an object echo (R) of the ultrasound signal (S), and a correlation signal (Ro) is generated from the receive signal (Rb, Rb') by a correlation filter (44) by correlation of the receive signal (Rb, Rb') with a correlation core (H, H'), and the correlation signal (Ro) is provided by a detector unit (20). The problem addressed by the invention is reliable recognition of an object echo in the correlation signal (Ro). For this purpose, a distortion device (V1, V2, V3, V4) provides each of the transmission signal (U) and/or the receive signal (Rb, Rb') and/or the correlation core (H, H') with a signal characteristic, which at least partially compensates a transmission characteristic (56) of the transmission unit (26) and/or of the receive unit (26) in the correlation signal (Ro).

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